

REMARKS

Applicants have carefully considered the positions of the Examiner, and respectfully request reconsideration based upon the manifest differences between the present invention and the cited references. Applicants have amended Claims 1, 13-15, and 22. Claims 1-8 and 13-24 are presented for further examination.

I. THE INVENTION

The present invention discloses an intelligent, modular server management system for enabling selective access, transparent control and operation of a plurality of remotely located computers from one or more user workstations. Further, the present invention provides efficient location, error detection and general status indication of the remote computers. The present invention preferably includes a computer interface unit coupled to each remote computer, a matrix switch unit and one or more user stations with a connected keyboard, video display and cursor control device. Alternatively, the present invention may be a "switch less" KVM solution that enables access and control of multiple servers from a single user console without the traditional KVM switch box and all the usual switch-to-server cables.

Each computer interface unit is connected to the matrix switch unit via a single networking cable, such as a CAT5 cable. The computer interface units receive signals from the remote computer and convert these signals to a format suitable for transmitting over the network cable. Further, each computer interface unit includes a signaling circuit to emit a signal, which may be audible or visual, upon detection of a problem or receipt of a signal command from a user attempting to locate or find information about a specific

remote computer. Additionally, the signaling circuit may transmit a message to the user workstation to inform a user of a problem with the remote computer or computer interface unit, general status (e.g., the completion of a firmware upgrade), etc. This message is generally displayed on the user workstation's monitor. In some instances, if an error is detected, a user at a user workstation may then access the remotely located computer and fix the problem. For example, a user may achieve such access to the problem remotely located computer by clicking on a link displayed on the video monitor at the user workstation. Advantageously, this enables quick and convenient access to remotely troubleshoot a problem with just a single click.

Furthermore, the present invention does not require any additional software to be installed onto the remote computers. Importantly, such a design eliminates any potential interference with the remote computer's operation or network performance. The present invention also allows several users simultaneous access, control and operation of the plurality of remote computers.

II. THE EXAMINER'S REJECTIONS

A. 35 U.S.C. § 102(e)

The Examiner rejected Claims 1, 13-20, 22, and 24 under 35 U.S.C. § 102(e) as being anticipated by North *et al.* U.S. Patent No. 6,505,245 ("North"). The Examiner states that:

[a]s per claim 1: A remote computer management system comprising: a plurality of remote computers; at least one user interface unit coupled to a keyboard, video monitor and cursor control device to said remote computers, said user interface comprising circuitry for receiving and transmitting keyboard, cursor control device and video signals; a plurality of computer interface face units, each of said units being coupled to one of

5 said remote computers, said computer interface units comprising circuitry for receiving and transmitting keyboard, cursor control device and video signals, and a signaling control circuit for generating a signal upon detection of a specific event; wherein said computer interface unit bi-directionally communicates with said user interface unit over a network.

(Internal citations omitted).

The Examiner then rejected dependent Claims 13-16 stating that North discloses each element of these claims.

Next, the Examiner rejected Claim 17 and opined:

10 [a]s per claim 17: a remote device management system comprising: a plurality of remote interface modules, each said remote interface module for physically connecting to keyboard, cursor control device and video cables of one a plurality of remote devices and for receiving and transmitting keyboard, cursor control device and video signals; a signaling control circuit within said remote interface module responsive to a
15 signaling circuit control signal, wherein said signaling circuit is capable of generating a signal in response to said signaling control circuit signal; at least one management coupled to each of said remote interface modules; and at least one user interface device coupled to a keyboard, cursor control device, and video monitor for receiving and transmitting keyboard; cursor control device and video signals; wherein said user interface device is capable of producing said signaling circuit control signal; and wherein
20 each said remote interface module is connected via a single network cable to said management unit.

25 (Internal citations omitted).

Similarly, the Examiner rejected dependent claims 18-21 as being anticipated by North.

The Examiner then rejected Claim 22, stating that:

30 [a]s per claim 22: North disclosed monitoring for events at said plurality of remote devices via said interface module comprising a signaling circuit; detecting said event at said interface module; producing a response signal in response to said event detection; transmitting said signal to said user interface device; and displaying a notification message on a video monitor in response to said transmitted signal; wherein said notification message
35 indicates the occurrence of said event.

(Internal citations omitted).

Finally, the Examiner rejected dependent Claim 24 and opined that North discloses “wherein said signaling circuit produces said response signal.”

B. 35 U.S.C. § 103(a)

5 The Examiner then rejected Claims 2-8, 21, and 23 under 35 U.S.C. § 103(a) as being unpatentable over North as applied to Claim 1 and further in view of Srinivasan *et al.* U.S. Patent Application Pub. No. 2004/014835 (“Srinivasan”). In the opinion of the Examiner, “it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Srinivasan related to generating an audible or
10 visual signal in response to a detection of an event in a plurality of monitored computing devices and have modified the teachings of North related to remotely monitoring and controlling [a] plurality of network elements in a communication network in ‘order to provide automatic notification as to any network server problems and to provide corrective actions to be taken’.”

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III. THE EXAMINER'S REJECTIONS SHOULD BE RECONSIDERED AND WITHDRAWN

Applicants have amended Claims 1, 13-15, and 22, and herein respond to the
20 Examiner’s rejections by highlighting the differences between the pending claims and the cited references such that it should become apparent to the Examiner that these rejections should be reconsidered withdrawn.

A. 35 U.S.C. § 102(e)

The Examiner rejected Claims 1, 13-20, 22, and 24 under 35 U.S.C. § 102(e) as being anticipated by North. Applicants respectfully submit that the Examiner's reliance on North is misplaced and the rejection under 35 U.S.C. § 102(e) should be reconsidered and withdrawn. It is black letter law that for a reference to be anticipatory, it must teach each and every claimed limitation. North falls far short of this requirement.

Briefly, North discloses a management system for managing computing devices on a computer network from a common remotely located console and without the use of management agents at each computing device. (See, e.g., col. 2, lines 40-44). Further, the computing devices are arranged in logical groups and managed from a corresponding invocation of a management application residing on a management terminal.

As is more clearly set forth in the amended claims, the present invention is very different from North. First, nowhere does North teach a computer management unit that provides a link on a video monitor at a user workstation to enable access to a remotely located computer simply by clicking on the link upon detection of a specific event. North also fails to teach a plurality of computer interface units comprising a signaling circuit in communication with a separate computer management unit (e.g., communication via a LAN or the Internet). Rather, North's system merely couples a serial I/O port of each computing device directly to an event activity module of a central management terminal.

In addition, North does not teach the reception and transmission of keyboard, cursor control device and video signals thereby rendering North incapable of enabling a user at a user interface unit to remotely access, control and fix problems on the remote device as if user was directly connected to the remote device. Data output from the

computing device is received by the central management terminal and transferred to the invocation associated with the computing device. Within the invocation of the management application, an event detection module determines whether the received output device data indicates that an event has occurred at the manageable device where the output data originated. North simply does not teach a plurality of computer interface units that communicate with a separate computer management unit nor accessing, controlling and fixing a problem at the remote device from a local user station.

In contrast, the present invention claims in independent Claims 1, 17, and 22 a plurality of computer interface modules in communication with a computer management unit for enabling, *inter alia*, event monitoring as well as the access, monitoring and control of a plurality of remote computers from one or more local user stations. Significantly, the computer management unit may provide a link on a video monitor at a user workstation to enable a user access to a problem remotely located computer simply by clicking on the link.

Nowhere does North teach such a novel design. Indeed, such a design greatly simplifies the identification and trouble shooting of remote problem computers. Furthermore, as previously set forth, by utilizing a plurality of computer interface modules in communication with a computer management unit, the present invention does not require all the remote computers to be in a single location close to the switch (as required by North).

Therefore, Applicants submit that the Examiner's rejection of Claims 1, 13-20, 22, and 24 in view of North should be reconsidered and withdrawn.

B. 35 U.S.C. § 103(a)

Next, the Examiner rejected Claims 2-8, 21, and 23 under 35 U.S.C. § 103(a) as being unpatentable over North as applied to Claim 1 and further in view Srinivasan. In the opinion of the Examiner, “it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Srinivasan related to generating an audible or visual signal in response to a detection of an event in a plurality of monitored computing devices and have modified the teachings of North related to remotely monitoring and controlling [a] plurality of network elements in a communication network in ‘order to provide automatic notification as to any network server problems and to provide corrective actions to be taken’.” Applicants respectfully disagree.

As discussed above and as set forth in Applicants’ Office Action Response dated November 21, 2005, North discloses a system for remotely controlling a set of computing devices on a computer network via a central management unit connected to the computing devices via serial I/O cables. Srinivasan discloses a hardware and software monitoring system for a remote computer including an event monitoring module loaded on the remote computer. That is, Srinivasan requires an additional software program (i.e., the event detection module) to be installed on the remote computer, which raises the potential for interfering with remote computer’s operation and network performance.

The event monitoring module itself includes a hardware detector that detects hardware events on the computer that may need attention and a software service detector that detects the status of software running on the remote computer to determine if any software has failed or is not operating properly.

When an event is detected, information concerning the event may be sent to a support site over a network whereby an online specialist can review the information, determine an appropriate action to take, and notify the end user of such actions to take in order to correct a problem. The end user located at the remote computer must then take
5 the appropriate action. As such, Srinivasan is limited to the monitoring of a single computer, whereby when an event occurs, a remote support staff specialist provides the end user with the appropriate steps to correct the problem. The end user located at the remote computer must actually fix the problem.

Thus, even if combining the teachings of North and Srinivasan were proper,
10 Applicants submit that such a combination does not teach the claimed invention as suggested by the Examiner. The present invention is very different from the systems of both North and Srinivasan. In particular, the combination of North and Srinivasan fails to teach remotely accessing and controlling a remote device to fix a problem on that device simply by a user at a user workstation clicking on a link to access and control a problem
15 remote device, as well as the claimed computer interface units in communication with a computer management unit. The computer interface units receive signals, including signals such as those indicative of the occurrence of a certain event, from the remote computer and convert these signals to a format suitable for transmission over a network, such as a LAN, WAN or the Internet.

20 Further, the computer interface units eliminate the necessity for any additional software to be loaded onto the remote device. Instead, the computer interface unit itself comprises all the necessary software and hardware (including event detection circuitry). Thus, the present invention is able to monitor for and detect certain events and problems

without the restrictions and added limitations such as those found in North and Srinivasan (i.e., distance limitations, potential interference with the remote computer's operation or network performance, etc.). Furthermore, the present invention enables users to remotely access and control, as well as to remotely fix many problems on, a plurality of remote
5 computers without requiring any additional software to be loaded onto the remote computer. Nothing in either North or Srinivasan suggest this novel system.

In view of the foregoing, Applicants request that the Examiner's rejection of Claims 2-8, 21, and 23 should be reconsidered and withdrawn. The present invention, for the first time, discloses a system and method for intelligent modular remote computer
10 management for monitoring and detecting events at a plurality of remote devices as well as remotely fixing certain problems that arise. A system and method such as this is neither taught nor suggested anywhere in the cited references, including North and Srinivasan. As discussed above, both North and Srinivasan fail to teach a system and method for locating and detecting errors and the status of a plurality of remote devices, as
15 well as enabling access and control of a problem remote device simply by a user at a user workstation clicking on a link, which may be provided by the computer management unit. North and Srinivasan both also fail to teach a system which utilizes a plurality of computer interface units each coupled to one of a plurality of remote devices and in communication with a computer management unit, whereby the remote devices do not
20 need to be located in close proximity with one another. Therefore, upon closer review of the cited references in view of the amendments and remarks above, Applicants submit that it will be apparent to the Examiner that the rejection of Claims 2-8, 21-23 should be reconsidered and withdrawn.

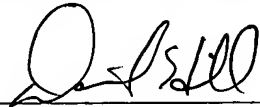
CONCLUSION

In view of the foregoing, Applicants respectfully submit that the present application as claimed in Claims 1-8 and 13-24 represents a patentable contribution to the art and the application is in condition for allowance. Early and favorable action is
5 accordingly solicited.

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Respectfully submitted,

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